

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions  
(formerly Eaton)

Brand: STREETWORKS

Report Number: P579432

Luminaire Tested: **CST-CA10-310-730-U-T5-HSS-HM-EX90**

Issue Date: 11/18/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P579432  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2110-429-1)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 11/18/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: CST-CA10-310-730-U-T5-HSS-HM-EX90  
Description: CELESTEON HIGH MAST LUMINAIRE WITH FIELD INSTALLED SHIELD  
Light Source: (10) 3000K CCT, 70 CRI LEDS  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 38408 lumens  
Efficiency: N/A  
Efficacy: 122.9 lumens/watt  
Luminous Opening: Circular (Dia: 2.08' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B5 - U2 - G5

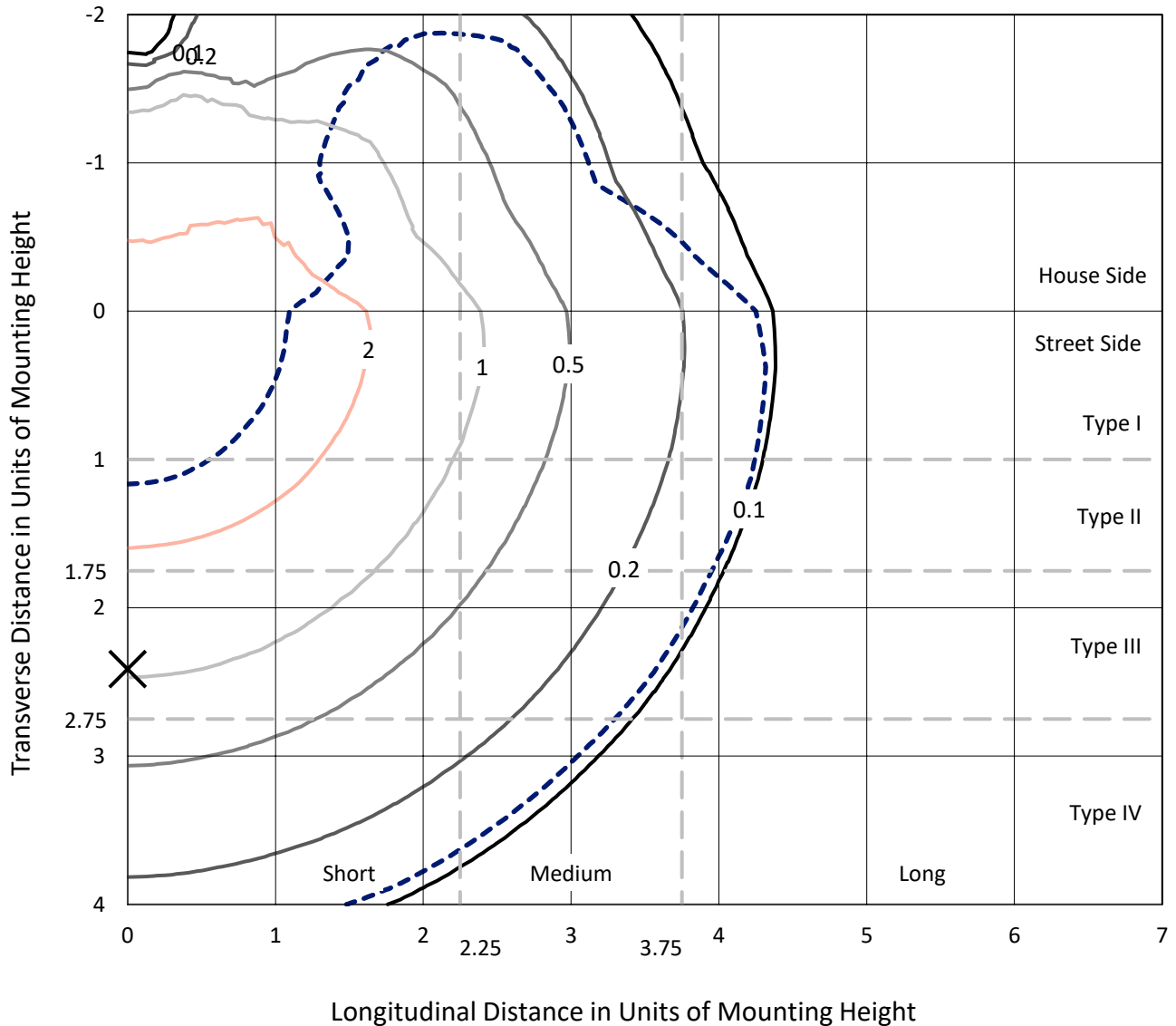
Input Watts (W): 312.4  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

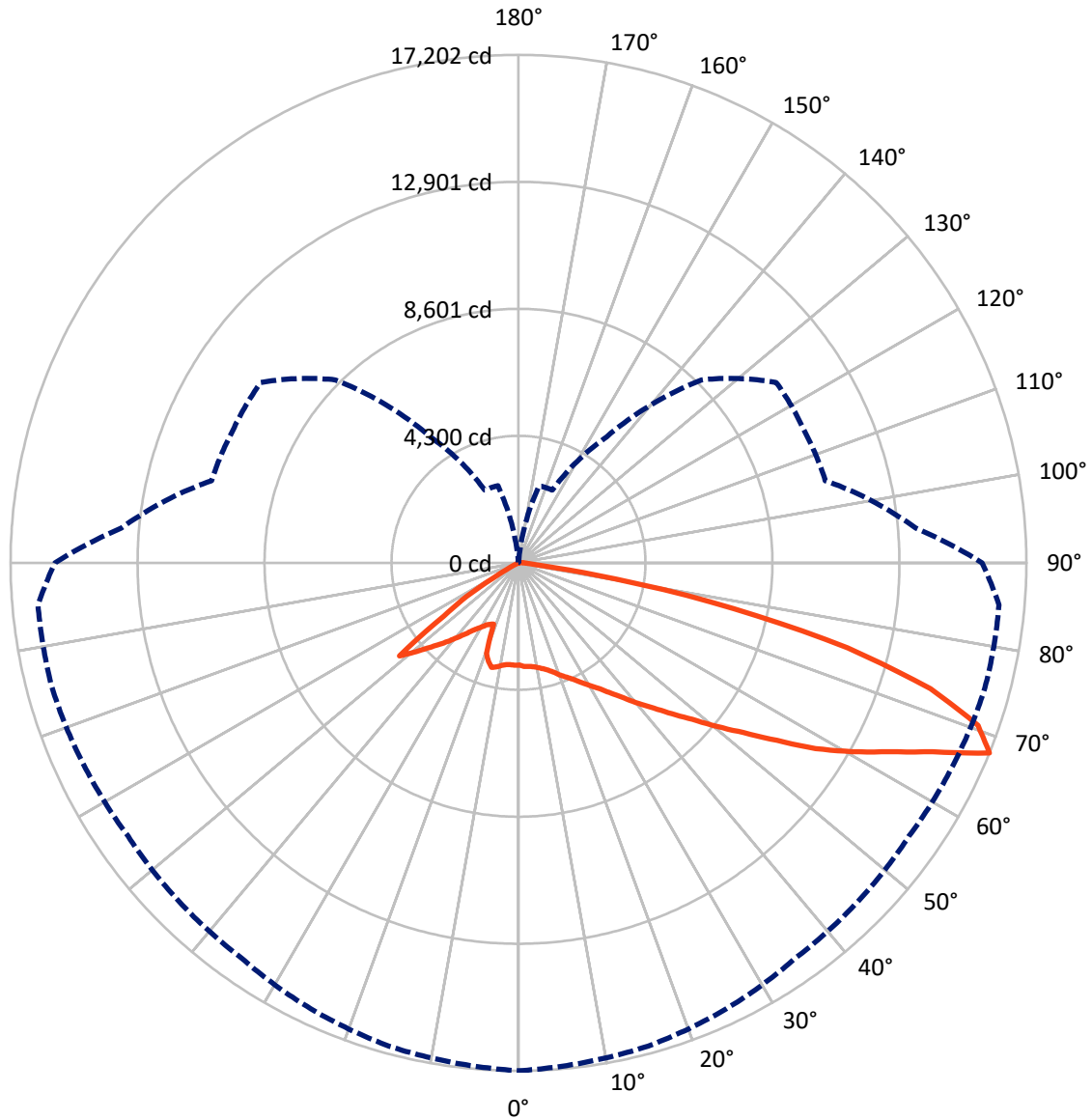
× Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 3.9 fc  
 Type IV - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 0-Deg Lateral      - - - Horizontal Cone Through 67.5-Deg Vertical

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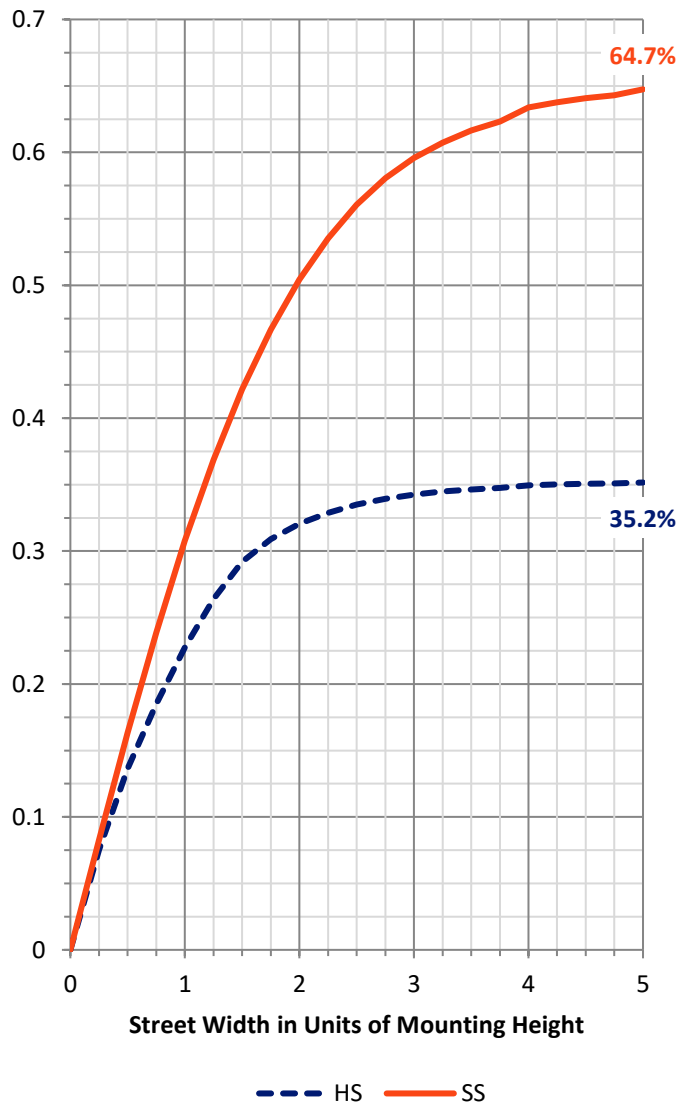
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	13519.6	0.8	13520.4
	% Fixture	35.2	0.0	35.2
<b>Street Side</b>	Lumens	24860.5	27.1	24887.6
	% Fixture	64.7	0.1	64.8
<b>Total</b>	Lumens	38380.1	27.9	38408.0
	% Fixture	99.9	0.1	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	333.0	0.9
10°-20°	1034.4	2.7
20°-30°	1793.4	4.7
30°-40°	2942.7	7.7
40°-50°	4908.5	12.8
50°-60°	7943.8	20.7
60°-70°	10965.1	28.5
70°-80°	7910.8	20.6
80°-90°	548.3	1.4
90°-100°	23.8	0.1
100°-110°	4.0	0.0
110°-120°	0.1	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	38380.1	99.9
0°-180°	38408.0	100.0

**Coefficient of Utilization**

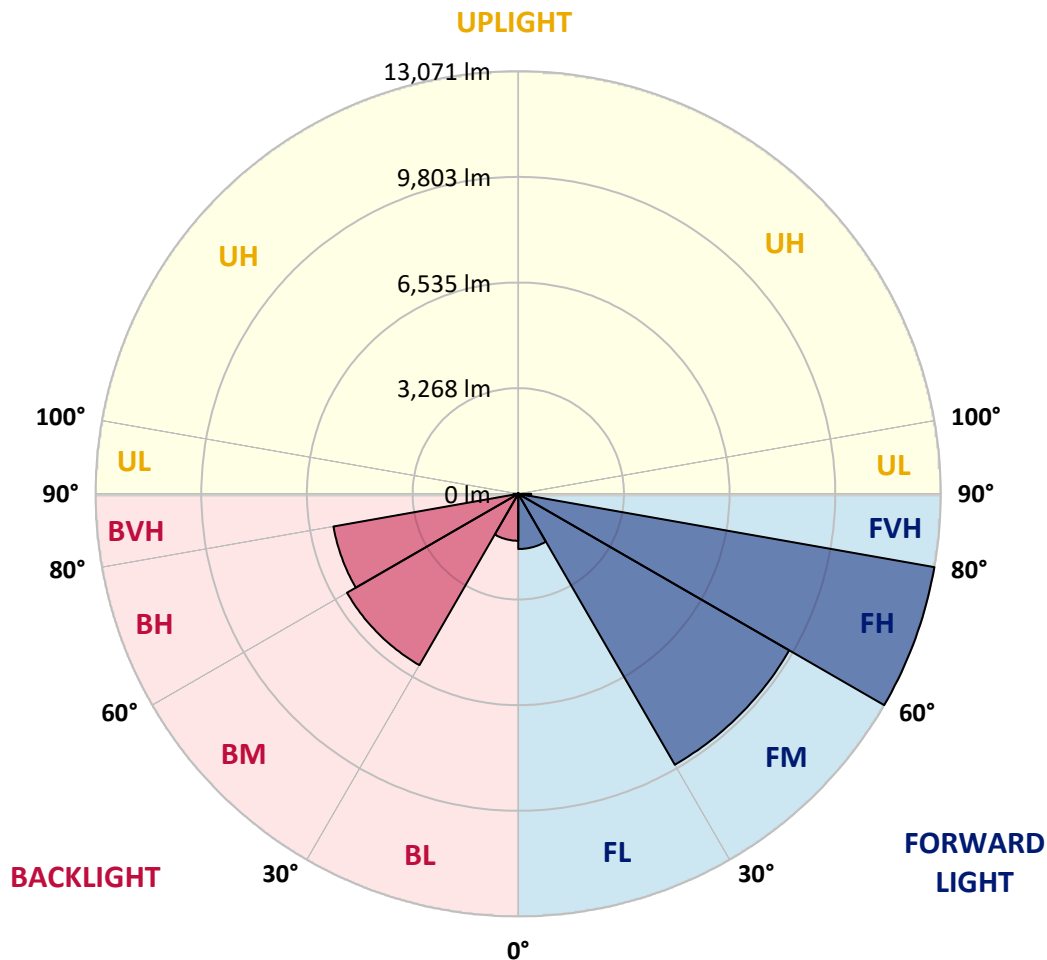


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1708.0	4.4			
FM (30°-60°)	9677.8	25.2			
FH (60°-80°)	13070.7	34.0			G5
FVH (80°-90°)	404.0	1.1			G3/500
BL (0°-30°)	1452.9	3.8	B3/2500		
BM (30°-60°)	6117.3	15.9	B4/8500		
BH (60°-80°)	5805.1	15.1	B5		G5
BVH (80°-90°)	144.3	0.4			G2/225
UL (90°-100°)	23.8	0.1		U2/50	
UH (100°-180°)	4.1	0.0		U1/10	

**BUG Rating: B5-U2-G5**  
 Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	3461.2	3461.2	3461.2	3461.2	3461.2	3461.2	3461.2	3461.2	3461.2	3461.2	3461.2
2.5°	3514.2	3493.6	3495.1	3515.6	3459.8	3480.3	3456.8	3477.4	3467.1	3474.5	3483.3
5°	3524.5	3499.5	3502.4	3527.4	3483.3	3499.5	3471.5	3483.3	3474.5	3483.3	3484.8
7.5°	3550.9	3525.9	3527.4	3546.5	3500.9	3512.7	3486.2	3492.1	3477.4	3493.6	3489.2
10°	3606.8	3583.3	3574.5	3590.6	3550.9	3552.4	3521.5	3527.4	3505.3	3527.4	3518.6
12.5°	3681.8	3649.4	3652.4	3661.2	3612.7	3615.6	3578.9	3587.7	3550.9	3581.8	3571.5
15°	3772.9	3733.2	3737.7	3752.4	3705.3	3700.9	3667.1	3667.1	3634.7	3658.3	3648.0
17.5°	3899.4	3855.3	3852.3	3862.6	3824.4	3824.4	3786.2	3781.8	3749.4	3768.5	3765.6
20°	4064.1	4014.1	4005.3	4024.4	3975.9	3981.7	3933.2	3928.8	3893.5	3905.3	3906.8
22.5°	4212.6	4172.9	4171.4	4200.8	4143.5	4150.8	4106.7	4095.0	4065.6	4081.7	4086.1
25°	4383.1	4377.3	4372.9	4383.1	4325.8	4325.8	4294.9	4284.6	4265.5	4277.3	4289.0
27.5°	4597.8	4594.9	4583.1	4584.6	4536.1	4543.4	4509.6	4503.7	4494.9	4493.4	4487.5
30°	4834.6	4821.3	4805.1	4815.4	4793.4	4800.7	4771.3	4752.2	4749.3	4750.7	4741.9
32.5°	5097.7	5080.1	5069.8	5087.5	5096.3	5116.9	5115.4	5062.5	5062.5	5084.5	5044.8
35°	5424.2	5396.2	5405.1	5428.6	5446.2	5499.2	5490.3	5453.6	5465.3	5475.6	5428.6
37.5°	5807.9	5788.8	5828.5	5872.6	5874.1	5949.1	5931.4	5940.3	5938.8	5925.6	5894.7
40°	6268.2	6237.3	6278.4	6312.3	6291.7	6381.4	6378.4	6418.1	6444.6	6490.2	6472.5
42.5°	6725.4	6701.9	6741.6	6815.1	6803.4	6906.3	6921.0	6982.7	7019.5	7090.1	7048.9
45°	7288.6	7275.4	7312.1	7369.5	7409.2	7545.9	7600.3	7626.8	7719.4	7804.7	7709.1
47.5°	7919.4	7937.0	7931.1	8035.5	8123.8	8289.9	8312.0	8397.2	8478.1	8572.2	8479.6
50°	8704.5	8675.1	8701.6	8801.6	8945.7	9066.3	9179.5	9301.5	9380.9	9478.0	9307.4
52.5°	9550.0	9575.0	9633.8	9788.2	9894.1	10036.7	10139.6	10285.2	10363.1	10446.9	10224.9
55°	10616.0	10636.6	10701.3	10860.1	10935.1	11096.8	11167.4	11313.0	11388.0	11424.7	11140.9
57.5°	11865.8	11796.7	11849.6	11932.0	12048.1	12223.1	12242.2	12379.0	12379.0	12426.0	12064.3
60°	12981.8	12934.8	12990.6	13108.3	13153.9	13312.7	13296.5	13408.2	13437.6	13402.4	12970.1
62.5°	14081.7	14090.5	14162.5	14200.8	14183.1	14277.2	14315.4	14433.1	14384.6	14396.3	13897.9
65°	15416.7	15437.3	15430.0	15359.4	15200.6	15385.9	15375.6	15562.3	15574.1	15679.9	15100.6
67.5°	17201.8	17110.6	16944.5	16660.7	16346.0	16237.2	16141.6	16234.3	16353.4	16334.3	15699.1
70°	16507.8	16359.2	16272.5	16025.5	15605.0	15387.3	15188.8	15205.0	15378.5	15394.7	14744.8
72.5°	14593.3	14518.4	14184.6	13968.4	13680.2	13512.6	13273.0	13327.4	13553.8	13592.0	13074.5
75°	11511.5	11442.4	11140.9	11070.4	10927.7	11010.1	10951.3	10973.3	11155.6	10988.0	10677.8
77.5°	7450.3	7466.5	7419.4	7579.7	7573.8	7578.2	7792.9	7815.0	7992.9	7890.0	7590.0
80°	3340.7	3389.2	3503.9	3736.2	3595.0	3671.5	3753.8	3728.8	3908.2	3502.4	3648.0
82.5°	676.4	699.9	660.2	689.6	644.0	667.5	701.4	649.9	644.0	597.0	554.3
85°	348.5	352.9	351.4	344.1	302.9	279.4	269.1	226.4	204.4	200.0	185.3
87.5°	226.4	229.4	222.0	220.6	194.1	177.9	158.8	133.8	111.7	77.9	64.7
90°	138.2	138.2	130.9	123.5	110.3	98.5	79.4	57.3	33.8	13.2	7.4
92.5°	92.6	92.6	89.7	85.3	76.5	66.2	51.5	33.8	16.2	5.9	2.9
95°	58.8	58.8	57.3	55.9	50.0	42.6	32.3	20.6	10.3	4.4	1.5
97.5°	38.2	38.2	38.2	36.8	33.8	29.4	22.1	13.2	7.4	2.9	1.5
100°	23.5	25.0	23.5	23.5	22.1	19.1	14.7	8.8	5.9	2.9	1.5
102.5°	13.2	13.2	14.7	14.7	13.2	11.8	8.8	7.4	4.4	2.9	1.5
105°	5.9	5.9	7.4	7.4	7.4	5.9	5.9	4.4	2.9	2.9	1.5
107.5°	1.5	1.5	1.5	2.9	4.4	4.4	4.4	4.4	2.9	1.5	1.5
110°	0.0	0.0	0.0	1.5	1.5	2.9	2.9	2.9	2.9	1.5	1.5



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
112.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
115°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0





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**CANDELA DISTRIBUTION (continued):**

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	3461.2	3461.2	3461.2	3461.2	3461.2	3461.2	3461.2	3461.2	3461.2	3461.2
2.5°	3474.5	3456.8	3470.1	3448.0	3442.1	3423.0	3459.8	3465.6	3462.7	3468.6
5°	3477.4	3455.4	3471.5	3449.5	3448.0	3427.4	3465.6	3467.1	3456.8	3461.2
7.5°	3486.2	3465.6	3477.4	3452.4	3455.4	3430.4	3474.5	3473.0	3467.1	3477.4
10°	3518.6	3495.1	3499.5	3473.0	3480.3	3453.9	3508.3	3511.2	3505.3	3524.5
12.5°	3574.5	3542.1	3552.4	3521.5	3527.4	3500.9	3567.1	3571.5	3571.5	3602.4
15°	3650.9	3617.1	3639.1	3599.4	3600.9	3561.2	3611.2	3611.2	3617.1	3659.7
17.5°	3762.7	3721.5	3750.9	3714.1	3484.8	3398.0	3568.6	3673.0	3499.5	3484.8
20°	3900.9	3881.8	3897.9	3837.6	3465.6	3068.6	2759.9	2743.7	3086.3	3256.9
22.5°	4070.0	4050.8	4058.2	3981.7	3093.6	2814.3	2809.9	2780.5	2352.6	2235.0
25°	4268.5	4258.2	4242.0	3600.9	3198.0	2930.4	2895.1	2511.4	2265.8	2287.9
27.5°	4481.7	4450.8	3905.3	3740.6	3358.3	3046.6	2846.6	2345.2	2336.4	2357.0
30°	4719.9	4556.7	3997.9	3942.0	3545.0	3190.7	2477.6	2448.2	2448.2	2480.5
32.5°	5022.8	4255.2	4255.2	4225.8	3775.9	2801.0	2608.4	2590.8	2611.4	2624.6
35°	4977.2	4577.2	4624.3	4611.1	4089.1	2852.5	2818.7	2789.3	2793.7	2793.7
37.5°	4991.9	5008.1	5063.9	5006.6	3567.1	3076.0	3021.6	3015.7	3020.1	3030.4
40°	5453.6	5462.4	5483.0	5356.5	3833.2	3336.3	3261.3	3246.6	3261.3	3283.3
42.5°	5950.6	5975.6	5999.1	4871.3	4205.2	3631.8	3556.8	3528.9	3555.3	3578.9
45°	6538.7	6576.9	6216.7	5302.1	4625.8	3968.5	3889.1	3855.3	3871.5	3892.0
47.5°	7200.4	7260.6	5862.3	5850.6	5119.8	4367.0	4275.8	4211.1	4236.1	4234.6
50°	7947.3	6938.6	6476.9	6469.6	5671.2	4811.0	4716.9	4658.1	4677.2	4662.5
52.5°	8754.5	7128.3	7143.0	7141.5	6247.6	5288.9	5202.1	5128.6	4977.2	5116.9
55°	9580.9	7784.1	7840.0	7831.1	6851.9	5782.9	5690.3	5621.2	3673.0	3102.5
57.5°	10402.8	8469.3	8486.9	8507.5	7478.3	6259.3	5852.0	5375.6	2095.3	2085.0
60°	11214.5	9122.1	9157.4	9169.2	7816.4	5181.6	2392.3	2436.4	633.7	757.2
62.5°	12055.5	9766.1	9798.5	9788.2	8153.2	4818.4	2512.8	2462.9	58.8	54.4
65°	13128.9	10573.4	10527.8	10494.0	8684.0	5141.9	2699.6	2686.4	19.1	13.2
67.5°	13505.3	10757.2	10664.5	10652.8	8760.4	5211.0	2714.3	2704.0	19.1	13.2
70°	12652.5	10058.7	9899.9	9904.4	8151.7	4874.3	2532.0	2517.3	17.6	13.2
72.5°	11080.6	8883.9	8817.8	8467.8	7059.2	4287.6	2245.2	2189.4	17.6	11.8
75°	9097.1	7176.8	7029.8	6637.2	5618.3	3408.3	1763.0	1690.9	16.2	10.3
77.5°	6315.2	5033.0	4752.2	4352.3	3758.2	2259.9	1185.1	1092.5	14.7	10.3
80°	2862.8	2065.9	2076.2	1590.9	1274.8	766.1	376.4	341.1	13.2	8.8
82.5°	498.5	367.6	345.5	333.8	277.9	188.2	114.7	98.5	11.8	5.9
85°	173.5	139.7	154.4	182.3	161.7	113.2	70.6	67.6	7.4	2.9
87.5°	58.8	61.8	72.0	86.8	76.5	44.1	26.5	19.1	1.5	0.0
90°	5.9	7.4	7.4	7.4	4.4	0.0	0.0	0.0	0.0	0.0
92.5°	1.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	1.5	1.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
97.5°	1.5	1.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100°	1.5	1.5	1.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0
102.5°	1.5	1.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105°	1.5	1.5	1.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0
107.5°	1.5	1.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
110°	1.5	1.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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**CANDELA DISTRIBUTION (continued):**

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
112.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
115°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)